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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/790,033

03/02/2004

James Wilson-MacDonald

1011-001-10316

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12/26/2007

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EXAMINER

SHAFFER, RICHARD R

ART UNIT

PAPER NUMBER

3733

MAIL DATE

DELIVERY MODE

12/26/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/790,033

Applicant(s)

WILSON-MACDONALD ET AL.

Examiner

Richard R. Shaffer

Art Unit

3733

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 13 August 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,3-8,10-15 and 17-29 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,3-8,10-15 and 17-29 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 13 August 2007 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Drawings

The amended drawings filed on August 13th, 2007 are acknowledged and accepted by the examiner. The previous drawing objections are hereby withdrawn.

Specification

The amendments to the title, abstract and written disclosure filed on August 18th, 2007 are acknowledged and accepted by the examiner. The previous objections are overcome and are hereby withdrawn.

Claim Rejections - 35 USC § 112

The amendments to the claims filed on August 18th, 2007 are acknowledged and accepted by the examiner. The previous rejections under 35 U.S.C. 112, first and second paragraphs are overcome and hereby withdrawn.

Claim Rejections - 35 USC § 101

The amendments to the claims filed on August 18th, 2007 are acknowledged and accepted by the examiner. The previous rejections under 35 U.S.C. 101 are overcome and hereby withdrawn.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1, 4-8, 10, 11, 14, 15, 17 and 20-29 are rejected under 35 U.S.C. 102(b) as being anticipated by Martin (US Patent 5,672,175).

Martin discloses a device (**Figures 1-12**) comprising: a plurality biocompatible, shape memory, metal (**Column 6, Lines 29-36 and Column 8, Line 64**) springs (**21a/b-24a/b**) for generating a unidirectional force (magnitude determined pre- or intra-operation: **Column 4, Lines 36-41**) in either tension or compression (**Column 5, Lines 62-65**); the springs (**21a/b-24a/b**) being coiled (**Column 5, Line 55 through Column 6, Line 13**), leaf or other springs (**Column 20, Lines 4-5**); a first attachment means (**1**); second attachment means (**3**); a spring (**21a/b-24a/b**) placed between the attachment means (**1 and 3**); at least one of the attachment means including a base plate (**55, 55a**) and connecting means (**29 and 10**) which connects a free end (**27**) of a spring (**21a/b-24a/b**) to the base plate (**55, 55a**); the connecting means (**29 and 10**) having two locations for attaching to the base plate (above and below in relation to the spine being vertically orientated) either singly or in pairs; a mobile joint (**sphere 8 with spherical housing 9 in cylinder 10; Column 9, Lines 37-42**); a gripping means (**35**) that will allow motion of the spring in one axial direction and not the other in relation to an attachment means; and clamping means (**29, 30, 31; Column 12, Lines 29-50**) with a screw (**32**) to clamp and release.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 3, 12, 18 and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Martin.

Martin discloses all of the claimed limitations except is silent as to the upper unidirectional force being 200 N (the low end of 0 N is inherent to the nature of the device) and the spring being designed into the shape of a C or S.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to use the springs of Martin within the range of 0-200 N since it has been held that where the general conditions of a claim are disclosed in the prior art, discovering the optimum or workable ranges involves only routine skill in the art. *In re Aller*, 105 USPQ 233.

It would have been further a matter of obvious design choice to one skilled in the art at the time the invention was made to construct the springs of Martin in a C or S-shape, since applicant has not disclosed that such a shape solves any stated problem or is anything more than one of numerous shapes or configurations a person of ordinary skill in the art would find obvious for the purposes of providing a compression or extension force. *In re Dailey and Eilers*, 149 USPQ 47 (1966).

Response to Arguments

Applicant's arguments filed on August 13th, 2007 have been fully considered but they are not persuasive.

Applicant first contends that Martin fails to disclose gripping means allowing movement in one axial direction while preventing movement in the other direction. Element **35** performs or is capable of performing the function in numerous ways. First, merely acting as a block adjacent connection means (**29** and **10**); it prevents movement in a direction towards the adjacent connection means. Further, since it can adjust the length of the spring, it can set the spring in a great enough tension or compression to effectively prevent movement in one direction versus another. And further, since it does modify the length of the spring, it can only modify it in one direction at a time. Therefore, in the adjustment phase, the spring is moving in one direction while being prevented from moving in the other.

Applicant's second argument is in regards to Martin failed to recite a "mobile joint provided by an interface between one end of a unidirectional force generating means and a connecting means." First, the mobile joint (8 within 10) can be between a remotely located spring along the spine and an equally remote connection element. All that the claim requires is a mobile joint is provided by "an interface" located between an end of a spring and a connecting means. It does not state adjacent, nor does it say the spring is part of the interface, etc.

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Richard R. Shaffer whose telephone number is 571-272-8683. The examiner can normally be reached on Monday-Friday (7am-5pm).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Eduardo Robert can be reached on 571-272-4719. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

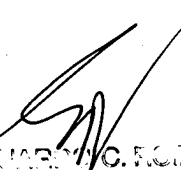
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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



Richard Shaffer
December 16th, 2007



EDWARD C. ROBERT
SENIOR PATENT EXAMINER